

109.22
3

DART AEROSPACE LTD	Work Order:	21893
Description: Bracket Assembly	Part Number:	D3183-041
04.11.25 C1 04.02.1978		D3183-042
Dwg: D3183 Rev. A page 1, 2, 4	Qty:	5 Kits
		Page 1 of 1

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveler	HA	04.11.26	5
2	MV	Cut (1) blank per D3183-041 & (1) blank per D3183-042 Cut blanks (2.00" x 1.50") x 4.30" Long Bar Material: 17-4 SS per AMS 5604/5643 (M17-4-B2.000x01.500) Batch: M14773	EP	05.06.06	5
3	MV	Machine D3183-1 as per Folio FA320 and Dwg D3183	HA	05.06.07	5
4	QC2	Inspect parts as they come off the CNC machine	HA	05.06.07	5
5	MV	Machine D3183-2 as per Folio FA320 and Dwg D3183	HA	05.06.06	5
6	QC2	Inspect parts as they come off the CNC machine	HA	05.06.06	5
7	MV	Deburr Break all sharp edges 0.005 to 0.015	HA	05.06.06	5
8	MV	Scribe batch number to D3183-1 & D3183-2 as per Dwg D3183	HA	05.06.06	5
9	QC5	Second check D3183-1 and D3183-2	SD	05.06.06	5
10	GA	Assemble D3183-041 as per Dwg D3183 Pick: Qty Part Number Description Batch 2 D3121-17 Washer 23505 4 D3183-045 Bearing 23505 2 D3183-7 Washer 2 MS24694-S50 Screw 2 B121-21 Bolt 234598	HA	05.06.06	5
11	GA	Assemble D3183-042 as per Dwg D3183 Pick: Qty Part Number Description Batch 2 D3121-17 Washer 23505 4 D3183-045 Bearing 23505 2 D3183-7 Washer 2 MS24694-S50 Screw 2 D3121-21 bolt B234598	HA	05.06.06	5
12	QC5	Inspect work to Step 10 & 11	EP	05.06.07	5
13	ST	Identify and Stock in Spacedoor cell D3183-041 Qty 5 D3183-042 Qty 5	CH	05/06/07	5
14	AC	Parts to Stock and Prorate Cost to parts per Step 13 Cost / part 94.25 94.25	HA	05/06/13	5
15	DC	Close W/O 136.01 159.34 Inspect Level 21	HA	05.06.15	5

Rev	Date	Change	Revised By	Approved
A.	03.03.28	New issue	KJ/RF	HA

RELEASED
03.03.31

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector
05.06.04	10	Change : Update BOM.	<i>[Signature]</i>	05.06.04	N/A	<i>[Signature]</i> MAGFAN	<i>[Signature]</i> 05.06.04

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

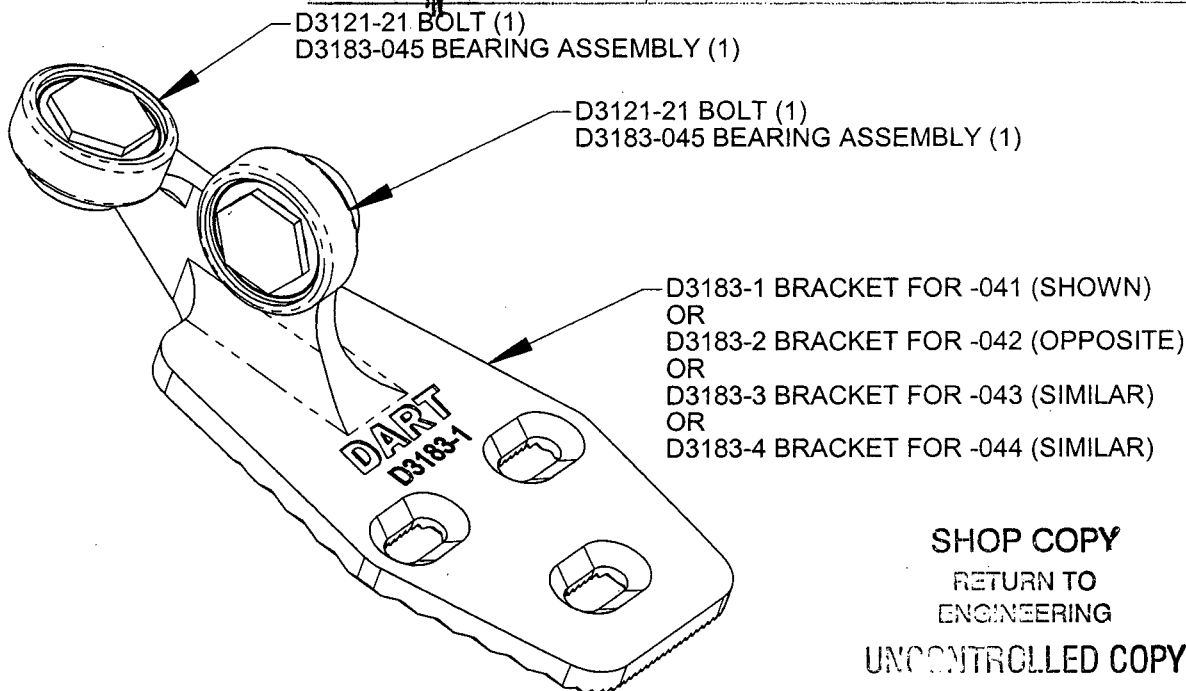
NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____



DESIGN <i>#</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D3183	REV. C SHEET 1 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1
A	03.01.24	NEW ISSUE	
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
C1	# 04.11.09	0.830 WAS 0.850	

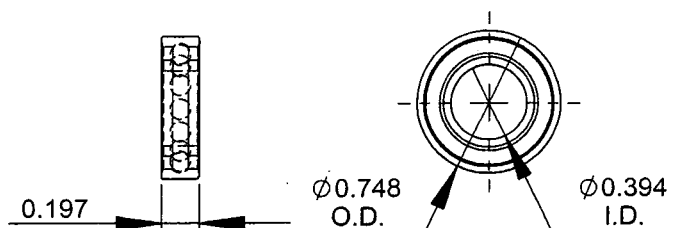
RELEASED
04.03.01 *#*



D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)

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WORK ORDER
NO. 21893

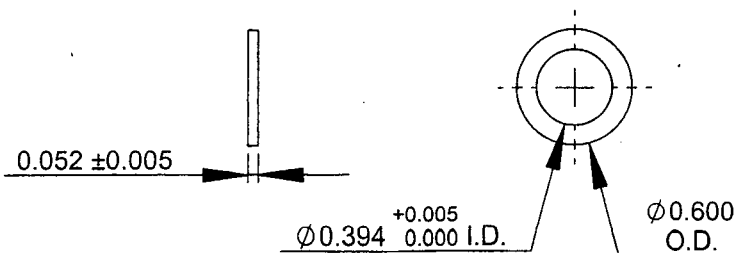


D3183-5 BEARING:
SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES

D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

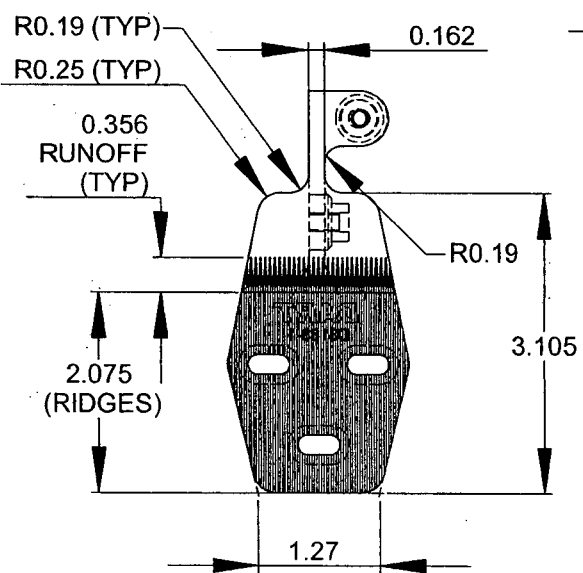
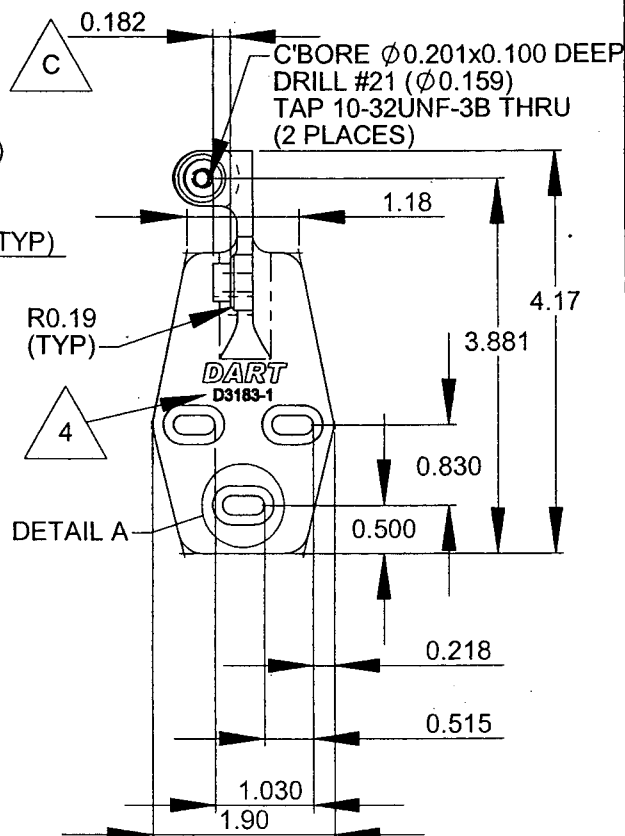
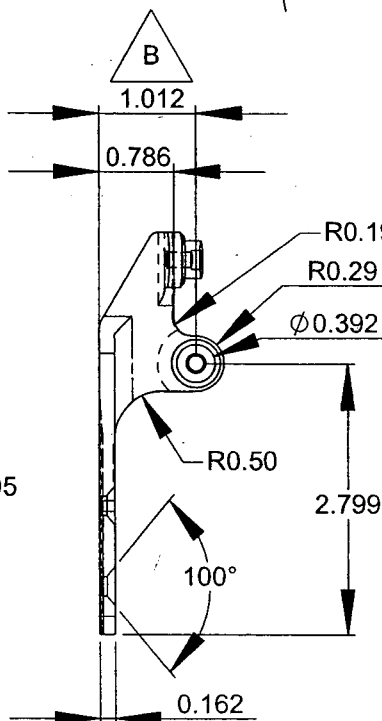
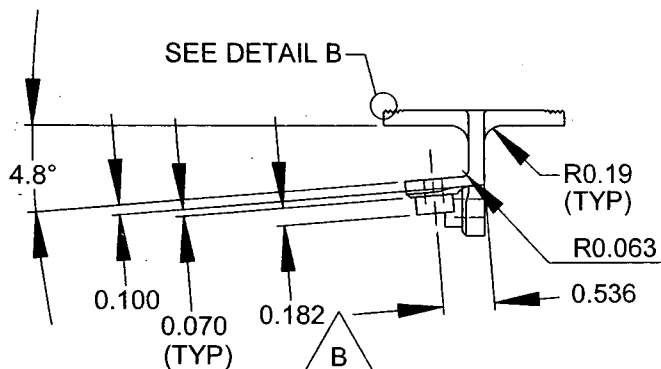


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DART

DESIGN	DRAWN BY	DART AEROSPACE LTD
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA
DATE	DRAWING NO.	REV. C
04.02.17	D3183	SHEET 2 OF 4
TITLE	SCALE	
BRACKET ASSEMBLY	1:2	

RELEASED
040301

D3183-1 BRACKET SHOWN
D3183-2 BRACKET OPPOSITE

- 1) D3183-1 CAN BE MADE FROM D3183-3
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

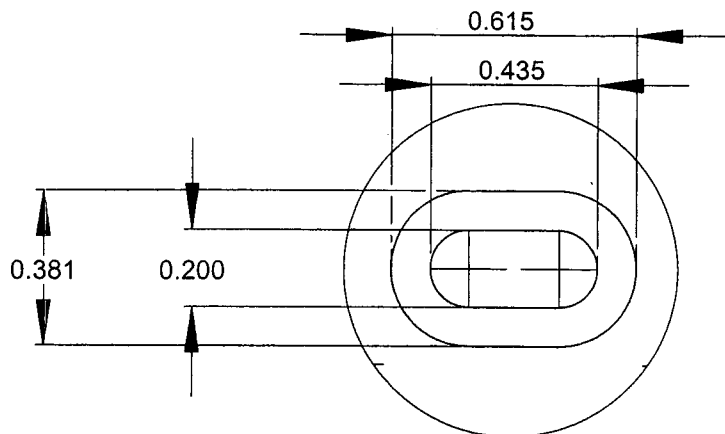
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NO. 21892

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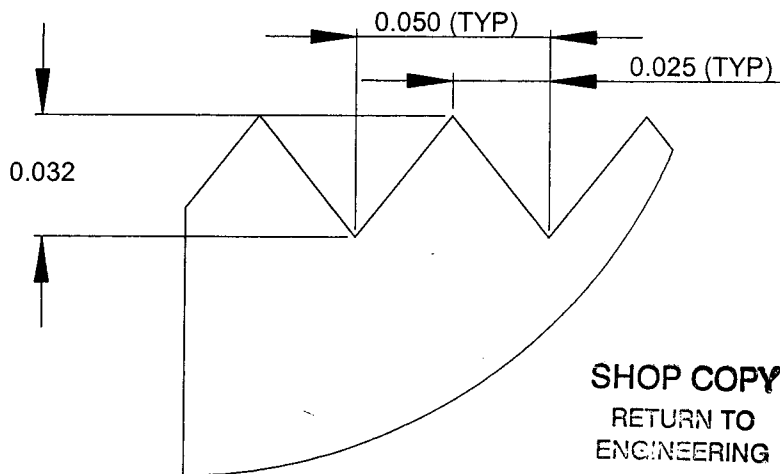


DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3183	REV. C SHEET 4 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1



DETAIL A (2 : 1)

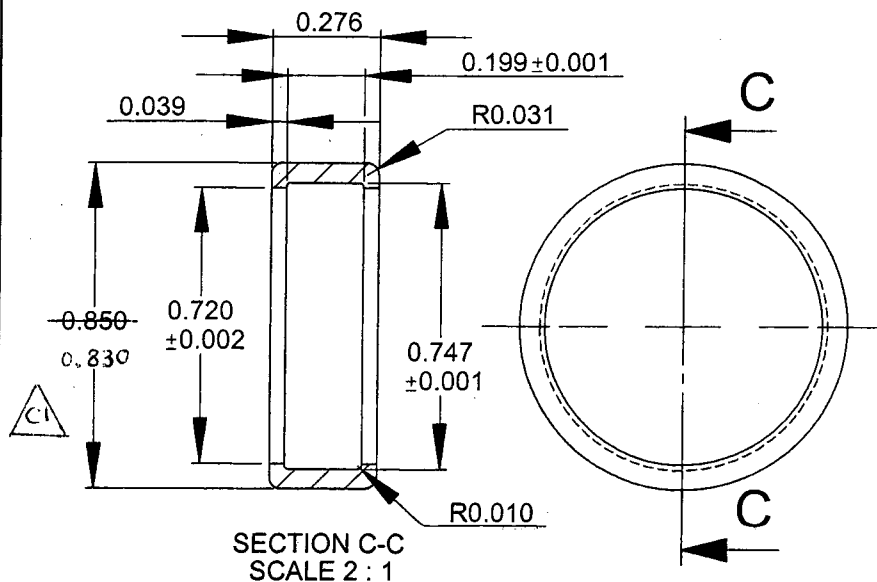
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04-03-01 *[Signature]*



DETAIL B (20 : 1)

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WORK ORDER
NO. 21893



D3183-9 CAP

- 1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

- 1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP

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DART AEROSPACE LTD		Work Order:	21893
Description: Bracket		Part Number:	D3183-1.
Inspection Dwg: D3183 Rev: C1		Page 1 of 2	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☒ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.075	+/-0.010	2.082	✓			
3.105	+/-0.010	3.109	✓			
.162	+/-0.010	.163	✓			
R.190	+/-0.010	R.187	✓			
.162	+/-0.010	.166	✓			
2.799	+/-0.010	2.807	✓			
Ø.392	+/-0.002	Ø.392	✓			
1.012	+/-0.010	1.016	✓			
.786	+/-0.010	.782	✓			
R.500	+/-0.010	R.500	✓			
.100	+/-0.010	.098	✓			
.070	+/-0.010	.078	✓			
.182	+/-0.010	.186	✓			
R.190	+/-0.010	.1875	✓			
1.900	+/-0.030	1.891	✓			
.500	+/-0.010	.503	✓			
4.17	+/-0.030	4.173	✓			
.830	+/-0.010	.827	✓			
.218	+/-0.010	.214	✓			

Measured by: <i>[Signature]</i>	Audited by: <i>[Signature]</i>	Prototype Approval: <i>N/A</i>
Date: 05-06-04	Date: 05-06-16	Date: <i>[Signature]</i>






Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

DART AEROSPACE LTD		Work Order:	21893
Description:		Part Number:	D3183-1
Inspection Dwg:	Rev:		Page 7 of 8

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.201	$\pm 1/1000$.201	✓			
.100	$\pm 1/010$.105	✓			
.200	$\pm 1/010$.201	✓			
.435	$\pm 1/010$.431	✓			
.381	$\pm 1/010$.376	✓			
.615	$\pm 1/010$.613	✓			
.032	$\pm 1/1000$.030	✓			

Measured by: 	Audited by: 	Prototype Approval: 
Date: 	Date: 05-06-16	Date: 

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

DART AEROSPACE LTD		Work Order:	21893
Description:		Part Number:	P3183-2
Inspection Dwg:	Rev:	Page 1 of 2	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☒ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.075	± 0.01	2.080				
3.105	± 0.01	3.108				
0.162	"	0.158				
R.190	"	R.188				
0.162	± 0.01	0.165				
2.799	"	2.805				
ϕ .392	± 0.002 -0.000	ϕ .3925				
1.012	± 0.01	1.020				
0.786	"	0.782				
R.50	"	R.50				
0.100	± 0.01	0.103				
0.070	"	0.070				
0.182	"	0.182				
R.190	"	R.188				
1.900	± 0.01	1.890				
0.500	"	0.497				
4.17	"	4.162				
0.830	"	0.827				
0.218	"	0.211				
0.201	"	0.207				

Measured by:	<i>RE</i>	Audited by:	<i>[Signature]</i>	Prototype Approval:	<i>N/A</i>
Date:	05.06.05	Date:	05.06.05	Date:	

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Nov 12, 2004
11:35 am

Work Order No : 0021893
Project Name : D3183-042
Project For : WK448
Work Order Type : Main
Main WO Number :
House Part Number : D3183-042
Description : Bracket Assembly
Manufactured : Yes
Amount Req'd : 5
Amount Done : 0
Start Date : 11-11-04
Est Finish Date : 11-25-04
Act Finish Date :
Drawings Req'd : No
Ok for Approval :
Approval Rec'd :

Department Code:
Burden Flags : NNNNNNN
WO Status : Open
Invoice State : Not Invoiced
Invoice Date :
Invoice Number :
Invoice Amount : 0.00
Order Entry No :
OE Value : 0.00
Est Margin : 0.000%
Actual Margin : 0.000%
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	0.00	0.00		
Margin :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	0.00